AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-20. (cancelled)

21. (currently amended): A method for preparing monodisperse biodegradable microspheres comprising the steps of:

a) preparing a single emulsion comprising at least one organic phase, which comprises a pharmaceutically active ingredient and a biodegradable polymer dissolved in an organic solvent, and at least one aqueous phase, the viscosity of the organic phase and the aqueous phase having a ratio of from 0.1 to 10;

b) subjecting the single emulsion obtained in step a) to controlled laminar shearing;

c) removing the solvent from the organic phase of the single emulsion obtained in step b) to obtain microspheres; and

d) isolating the microspheres so obtained.

22. (previously presented): The method of claim 21, wherein the microspheres are constituted in majority by the biodegradable polymer.

23. (previously presented): The method of claim 22, wherein the biodegradable polymer is selected from poly(α-hydroxy) acids, the aliphatic polyesters of poly(α-hydroxy acids), of poly(ε-caprolactones)-PCL, of polydioxanones - PDO, polyorthoesters, polyanhydrides, polycyanoacrylates, polyurethanes, polypeptides or poly(amino acids), modified polysaccharides, cellulose, polycarbonates, polydimethylsiloxanes and poly(vinyl acetates) and their derivatives and copolymers.

24. (previously presented): The method of claim 22, wherein the biodegradable polymer is selected from polylactic acids (PLA), and the copolymers of polylactic acid / polyglycolic acid (PLGA).

25. (previously presented): The method of claim 21, wherein the biodegradable polymer has a molecular weight of from 50 to 500 kDaltons.

26. (previously presented): The method of claim 21, wherein the organic solvent of the organic phase of the emulsion is ethyl acetate.

27. (previously presented): The method of claim 21, wherein the pharmaceutically active ingredient is lipid-soluble.

28. (previously presented): The method of claim 21, wherein the pharmaceutically active ingredient is water-soluble.

29. (previously presented): The method of claim 21, wherein the pharmaceutically active ingredient is a peptide or a protein.

30. (previously presented): The method of claim 21, wherein the emulsion prepared in step (a) comprises a pharmaceutically hydrophilic active ingredient in combination with a pharmaceutically lipophilic active ingredient.

31. (previously presented): The method of claim 21, wherein the organic phase of the emulsion represents from 10 to 60% by weight relative to the total weight of the emulsion.

32. (previously presented): The method of claim 21, wherein the organic phase of the emulsion comprises from 1 to 50% by weight of the polymer.

33. (previously presented): The method of claim 21, wherein the organic phase of the emulsion comprises from 1 to 50% by weight of the pharmaceutically active ingredient.

34. (cancelled)

35. (previously presented): The method of claim 21, wherein the aqueous phase of the emulsion contains at least one stabilizing agent and/or at least one viscosity agent.

36. (previously presented): The method of claim 21, wherein the aqueous phase of the emulsion contains at least one stabilizing agent and/or at least one osmolarity agent and/or at least one surfactant and/or at least one buffer agent.

37. (previously presented): The method of claim 21, wherein the step of controlled laminar shearing is carried out in a Couette device.

38. (previously presented): The method of claim 21, wherein the step of removing the solvent from the organic phase is carried out by extraction in water.

39. (cancelled)

40. (previously presented): The method of claim 21, wherein the pharmaceutically active ingredient is selected from antibiotics, hypolipidaemics, antihypertensives, antiviral agents, beta blockers, bronchodilators, cytostatics, psychotropic agents, hormones, vasodilators, anti-allergics, analgesics,

antipyretics, antispasmodics, anti-inflammatories, anti-angiogenics, antibacterials, anti-ulcerants, antifungals, anti-parasitics, antidiabetics, anti-epileptics, anti-Parkinsons, antimigraines, anti-Alzheimers, anti-acneics, antiglaucomic agents, anti-asthmatics, neuroleptics, antidepressants, anxiolytics, hypnotics, normothymics, sedatives, psychostimulants, anti-osteoporosis agents, anti-arthritics, anticoagulants, antipsoriasis agents, hyperglycaemics, orexigenics, anorexigenics, anti-asthenics, anticonstipation agents, antidiarrhoeals, anti-trauma agents, diuretics, myorelaxants, enuresis medicaments, erection disorder medicaments, vitamins, peptides, proteins, anticancer agents, nucleic acids, RNA, oligonucleotides, ribozymes and DNA.